

**ABSTRACT OF THE DISCLOSURE**

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2 A semiconductor apparatus and method for making the semiconductor apparatus are  
3 provided. The semiconductor memory device can include functional circuit blocks (100)  
4 having a multi-layer wiring structure for providing electrical connections between device  
5 elements within functional circuit blocks (100). Multi-layer wiring structure can include a  
6 wiring layer (M2) disposed in a M2 wiring layer horizontal track (120) and a M2 wiring  
7 layer vertical track (122). M2 wiring layer horizontal track (120) provides electrical  
8 connections by using wiring layer (M2) disposed in a horizontal direction and M2 wiring  
9 layer vertical track (122) provides electrical connections by using wiring layer (M2) disposed  
10 in a vertical direction. A wiring layer (M1) can form electrodes having electrical  
11 connections to diffusion regions of the device elements in functional circuit blocks (100).  
12 Wiring layer (M1) can have a higher sheet resistance and higher melting point than wiring  
13 layer (M2).